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UNITED STATES ENVIRONMENT PROTECTION AGENCY
REGION 5
EMERGENCY RESPONSE BRANCH
POLLUTION REPORT

Date: September 10, 1999
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Subject: South Central Terminal, OPA Removal Action,
Pana, Christian County, Illinois
Latitude: N 39° 22' 24.6" Longitude: W 89° 04' 57.2"

POLREP No.: 1 (Initial)	Site ID No.: Z5AX
Start Date: August 25, 1999	FPN: N99269
Completion Date:	Response Authority: OPA
NPL Staus: Non-NPL	Task Order No.: 41

A. BACKGROUND INFORMATION:

1. Incident Category: Former oil refinery and bulk storage terminal.
2. Site Description

The South Central Terminal (SCT) site is a former petroleum refinery approximately 93 acres in size situated on the south side of Pana, Illinois. The facility consists of 59 aboveground storage tanks (ASTs), crude oil pipeline and petroleum refining process equipment, asphalt plant, two American Petroleum Institute (API) oil/water separators, an oil covered surface impoundment, fuel testing laboratory, and several other buildings. The ASTs at the site have a combined capacity in excess of 17 million gallons. The refinery operated from 1939 until 1982, producing No. 2, 4, and 6 fuel oils, leaded and unleaded gasoline, jet fuel (JP-4), and naphtha. According to IEPA information, a portion of the site may have also been used for oil waste disposal.

3. Description of threat

Approximately 59 aboveground storage tanks with capacities ranging from 1,100 to 2.3 million gallons are located on-site in various stages of deterioration. Several of these tanks have released their contents to the unnamed tributary leading to Coal and Opossum Creeks. It is estimated that 250,000 gallons of oil and flammable liquids are present within the tanks, refining process

equipment and asphalt plant, and continue to threaten to release to the unnamed tributaries of Coal and Opossum Creeks. A drainage ditch leading from the oil covered western surface impoundment bypasses the API oil/water separator and directly discharges into an unnamed tributary to Coal Creek. The IEPA had placed a small amount of absorbent boom across this ditch to prevent oil from migrating into the tributary. Several soil samples have confirmed the presence of VOCs, SVOCs, and lead above TCLP regulatory levels. Coal and Opossum Creeks are tributary's to the Kaskaskia and Mississippi Rivers.

In addition, a substantial release of oil from the manway of a tank located within the area of the asphalt plant continues to migrate toward the tributaries leading to Coal and Opossum Creeks. Ground water samples collected by IEPA from 10 on-site wells revealed the presence of free petroleum product migrating into the water table to the north and west beneath the site.

4. Site Assessment/Inspection Results

On May 16, 1999, The U.S. EPA Emergency Response Branch (ERB) was contacted by the IEPA and requested to investigate a release of hazardous substances, pollutants and contaminants from the SCT site. The IEPA indicated that there were numerous tanks, secondary containment structures, and refining equipment containing oil and hazardous substances which had released to the environment and the unnamed tributaries leading to Coal and Opossum Creeks. The IEPA stated that the most pressing concern at the site was the release and threat of a continued release of hazardous substances and abandoned wastes to surface waters of the State, air, and groundwater.

Between July 12-16, 1999, the U.S. EPA conducted a Site Assessment of the SCT facility to document threats to public health or welfare or the environment posed by the presence of oil and hazardous substances. The Site Assessment evaluated these threats pursuant to the authorities of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the Federal Water Pollution Control Act (FWPCA), as amended by the Oil Pollution Act (OPA). During the course of the assessment several AST's were observed leaking and in various stages of deterioration. Oil contained in pit sumps, surface impoundments, drums, and oil stained soil were also observed. There was also evidence of previous oil discharges into the unnamed tributary leading to Coal and Opossum Creeks from the western surface impoundment.

Samples were collected from the ASTs, oil impacted soil, and surface impoundments. All ASTs were evaluated for condition and an estimated volume of residual product in each tank. Samples were analyzed for volatile and semi-volatile organic compounds (VOCs/SVOCs), total petroleum hydrocarbons (TPH), priority pollutant metals, polychlorinated hydrocarbons (PCBs), and British thermal unit values (Btu). Analytical results have revealed that, while a number of ASTs contain CERCLA hazardous substances, a large number of the ASTs, pits, surface impoundments, and secondary containment structures were found to contain oil as defined under Section 311 of the FWPCA.

A number of the ASTs, pits, surface impoundments, and secondary containment structures were observed to contain oil and other petroleum wastes. Analytical results from oil and water samples collected from these structures exhibited elevated levels of lead, VOCs, and SVOCs, and confirmed the presence of oil as defined under Section 311 of the FWPCA. Oil was found to be discharging into an unnamed tributary leading to Waters of the United States. Based on these observations and analytical results, it was determined that the site posed a threat of release of oil into waters of the United States pursuant to the FWPCA, as amended by the OPA, and was therefore eligible for funding under the Oil Spill Liability Trust Fund (OSLTF).

B. RESPONSE INFORMATION

1. Situation

On September 24, 1999, the Oil Spill Liability Trust Fund (OSTLF) was opened with an incident ceiling of \$747,600, to begin oil spill response actions. An incident specific Interagency Agreement (IAG) was drafted and sent to the USCG for review and approval requesting the funding for this ceiling.

U.S. EPA, START, and the Emergency Response and Rededication Services (ERRS), Environmental Quality Management (EQM), began mobilizing personnel and equipment to site on 08/25/99. Between 8/26 and 9/9, ERRS established field support and decontamination facilities with utilities, and prepared to mobilize the USEPA mobile water treatment system, the Springfield Belle. On 8/30, ERRS began installation of electric and water utility connections to the support and decontamination zones. ERRS mobilized the skid vacuum unit and track excavator and began . ERRS began inventorying ASTs on 8/31, and began consolidation of material from tanks 311 to 314 into tank 90. The surface impoundment and drainage ditch bypassing the west API oil/water separator was secured to prevent further discharges into Coal Creek.

During the first part of the week, weather included temperatures in the 80s and sunny conditions. The remainder of the week's weather had temperatures in the 70s and clear conditions.

2. Actions Taken

- a. 8/25/99: U.S. EPA, START, and ERCS mobilized to site, conducted a site reconnaissance, and planned removal activities and setup.
- b. 8/25 and 8/31: U.S. EPA, START, and ERCS mobilized personnel and equipment to site. ERCS established support and decontamination facilities including office trailers, a decontamination trailer, and contamination reduction zone, all supported with utilities. ERRS began oil recovery from tanks 311 to 314 into tank 90.
- c. On 09/01: ERRS mobilized the mobile water treatment unit, Springfield Belle, office trailers and continued utility installation. Oil recovery from tanks adjacent to the west surface impoundment continued. The site was secured and crew demobilized for the Labor Day weekend.
- d. Between 09/7 and 09/8, the site was re-mobilized and oil recovery and consolidation continued. The outfall for the water treatment system was installed and the crew began to pump out water and oil from the western API separator for connection to the treatment system. The ERRS crew cleared brush and debris for access to tanks and other bulk storage containers. START began collecting solid and liquid composite samples around several tanks. Modifications and revisions were completed in the site HASP. The final draft was presented for review and approval by the OSC, START, and ERRS.

- e. During oil/water recovery, a PVC valve was severed and a release was generated within the bermed area of the asphalt tanks. The crew sealed and secured the release and began recovering and transferring the heavy oil into Tank 90.
- f. On 09/09/99, EQM mobilized the operator to begin setting up the Springfield Belle to begin water treatment. ERRS continued the oil/water separation with the skid vacuum near the water separator. ERRS continued recovering oil/water from the asphalt tanks. START completed the sampling around tanks 19, 32, 37, 90, 102, 108, 113, and 115 to 119. The safety plan was finalized. A final emergency contingency plan was completed and finalized by the OSC. Permanent power was established in the support and decontamination zones.

3. Plans

- a. Continue oil and water recovery/consolidation from tanks surface impoundments and pit sumps.
- b. Begin water treatment through granular activated carbon mobile unit, the "Springfield Belle".
- c. Maintain oil boom and skimming operations from the west surface impoundment and unnamed tributary to Coal Creek.

4. Key Issues

- a). IEPA Bureau of Water to provide general NPDES discharge requirements for water treatment activities by 09/14.
- b). Asbestos thermal and pipe insulation must be removed under CERCLA activities before pipelines can be opened to remove residual oil/water from the refinery and associated equipment and tanks. CERCLA activities delayed until funding is approved from the Regional office. OPA removal activities can be delayed until additional CERCLA funding is obtained.

5. Costs

- A. Case open.
- B. Costs as of 9/9/99;

	<u>Budgeted</u>	<u>Total To Date</u>	<u>Remaining</u>
ERRS	\$600,000	\$53,802	\$546,198
U.S. EPA	\$78,000	4,380	73,620
START	<u>\$60,000</u>	<u>2,820</u>	<u>57,180</u>
Total	\$747,600	\$61,002	\$676,998

C. **DISPOSITION OF WASTES**

No wastes have been disposed of to date.